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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,717	11/21/2001	Johan F.G.A. Jansen	P 283255 D1073-CIP	9570
43569	7590	07/13/2004	EXAMINER	
MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006			MCCLENDON, SANZA L	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/989,717	JANSEN ET AL.	
	Examiner	Art Unit	
	Sanza L McClendon	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,15,16,22-25,35,36,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-16, 22-25 is/are rejected.
- 7) ☒ Claim(s) 11-14,37 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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SUPPLEMENTAL DETAILED ACTION

Claim Rejections - 35 USC § 112

1. a. The following is a quotation of the first paragraph of 35 U.S.C. 112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
2. Claims 5 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for R1 being an amide, thioamid urethane or thiourethane or the compounds having the formulas (10), (11) and/or (12), when R13, R24 and R35 is excluded, does not reasonably provide enablement for any other type of organic groups having a MW from 40 to 20000, such as acrylated acrylics, polycarbonates, polylactones, polystyrenes, polyethers, polyesters and the like. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 5 and 22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. With regards to claim 5 component (C1) is referred to as a lactone according to the formula (1), however it is unclear if (C1) is to be a lactone how can X be a sulfur moiety and Y be a sulfur or NR7 moiety. Clarification is requested. In claim 5 component (C2) is referred to

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as a cyclic carbonate, therefore it is unclear how X can be a sulfur moiety, how Y and Z can be either a sulfur or NR7 moiety. Clarification is requested.

6. Claims 22-25 provides for the use of a radiation curable composition, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 22-25 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Objections

8. Claims 9 and 24 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to the other claims in alternative form only. See MPEP § 608.01(n).

9. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 fails to further limit claim 8.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

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skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-10, 15-16, 22-25, 35-36, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moussa et al (US 5,047,261) in view of Decker et al (Makromol. Chem., Rapid Commun. 11, 1990).

Moussa et al teaches processes for the manufacture of coatings by radiocrosslinking. Said process includes radiation crosslinkable compositions (C) comprising at least one (meth) acrylic compound (A) with a reactive diluent system comprising at least one mono (meth) acrylic carbonate (B) corresponding to the general formula (I)—see abstract. Said carbonate of general formula (I) appears to read at least one of the general formulas of claim 5, such as the cyclic carbonate (C2), therefore its functional group when attached to an acrylate should have a Boltzmann average dipole moment of higher than at least 3.5 and/or 4.5 Debye. In addition, it is deemed that claim 36 is anticipated by the formula when either m or n is zero and the other is 1, such that $n + m$ will equal 1. Said (meth) acrylic compound (A) can be chosen from those listed in column 5, lines 26-29 or can be a compound having the general formula (I) under the provision that both (A) and (B) are not simultaneously 2,3-carbonyldioxopropyl 2-methacryloyloxy ethyl carbonate. Component (A) can be found in the composition (C) in amounts from 25 to 60% by weight and component (B) can be found in amounts from 75-40% by weight. This appears to read on claims 15-16 and 35. In addition, said composition can comprise a photoinitiator and/or other additive usually employed in radiation curable compositions—see column 5, lines 1-2. Moussa et al does not expressly teach using compounds having the formulas as defined in claim 5 of the instant application. However Decker et al teaches carbonate-acrylate monomers that are highly reactive, wherein compounds (1) and (2) correspond to the general formula as defined by Moussa et al. Therefore, it would have been obvious for an artisan of ordinary skill in the art to prepare a radiation curable composition comprising the highly reactive monomer (3) of Decker et al as the mono (meth) acrylic carbonate reactive diluent. The motivation would have been the reasonable expectation of preparing a highly reactive radiation curable composition in the absence of evidence and/or arguments to the contrary because the compounds of Decker et al are deemed to be equivalent to the compound as taught by Moussa et al.

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With regards to claims

With regards to claims 22-25 and 39 -40, the limitations optical fiber coating composition, coating composition, adhesive, or ink composition are considered future intended uses, thus the examiner is interpreting the claims by the defining radiation curable composition. Therefore the compositions as taught by the reference combination are deemed to read on the compositions of claims 22-25, and 39-40. Therefore it would have been obvious for an artisan of ordinary skill in the art to use said radiation curable compositions as taught by Moussa et al and Decker et al as an adhesive for optical substrates, optical coatings for glass fibers, ink compositions or for making 3-D objects by stereolithographic methods. The motivation would have been the exploitation of using a radiation curable composition with highly reactive curing properties for adequately coating/bonding optical substrates, color coating substrates and/or preparing stereolithographic objects with faster and more adequate curing rates in the absence of unexpected results and/or evidence to the contrary.

Allowable Subject Matter

12. Claims 11-14 and 37-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach reactive diluents having the general formulas found in claims 11-14 and having a heterocyclic group of which the corresponding alcohol has a calculated Boltzmann average dipole moment of greater than 2.5. Nor does the prior art teach using a cyclic carbonates having the general formula (C2) found in claim 5, wherein Y is oxygen and Z is - NR₇ group.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Sanz McClendon", written over the printed name.

Sanza L. McClendon

Examiner

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SMc